**Science 7**

**CONDUCTORS AND INSULATORS INVESTIGATION Name:\_\_\_\_\_\_\_\_\_\_\_\_**

Using materials in the class, in your locker and in the recycle bin, your mission is to complete a thermal energy investigation using conductors and insulators

You will need to get three samples of snow that are all the same volume. Put the snow in three beakers that are the same size.

1. In one sample you just do nothing to it– this will be your control sample
2. In another sample you will build a device to help the snow melt as fast as possible (not using electricity).
3. In the third sample you will build a device to help keep the snow from melting.

**Decide what evidence you will be looking for to see that your device worked. What observations or measurements will you be making?**

**Draw a labeled Diagram of your three samples of snow**

**Give a brief explanation of how you think each sample will work.**

**Record your observations below:**

**Conclusion:**

**What were the results of your investigation?**

**Did you devices work as they were supposed to?**

**What would you do differently next time?**

**Heat and Temperature Review – Part 6 Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

***Thank you*** to the groups for your Heat and Temperature presentations and demonstrations!

Here is a little review of what we learned from each other…

1. Give 2 example of sources of chemical energy
2. What are 2 ways electricity can be produced?
3. What are the advantages and disadvantages of producing electricity in your examples above?
4. Mechanical forces the push or pull objects often release thermal energy. Given two examples of where mechanical energy is converted to thermal energy
5. What is Geothermal Energy and how is it used?
6. What is the difference between passive and active solar heating?

7)How are wind currents created so that we can collect wind energy?

1. What is the difference between renewable resources and non-renewable resources?
2. What is the greenhouse effect and why does it pose a problem?
3. In what ways are fossil fuels important to Alberta?
4. Describe some of the dangers involved when thermal energy is used
5. When is carbon monoxide produced?
6. What are some of the characteristics of carbon monoxide?
7. What are some of the symptoms of carbon monoxide poisoning?
8. Fire detectors and carbon monoxide detectors should be placed in very different locations in a house. Where should each of these detectors be placed in a house to provide maximum safety?
9. How can you help change people’s attitudes so that they will make wise environmental choices?